

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SSUJAN HOU AND  
LAM F. WONG

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Appeal No. 95-3583  
Application 08/185,294<sup>1</sup>

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ON BRIEF

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Before HAIRSTON, KRASS, and TORCZON, Administrative Patent  
Judges.

HAIRSTON, Administrative Patent Judge.

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<sup>1</sup> Application for patent filed January 24, 1994. According to applicants, the application is a continuation of Application 07/859,746, filed March 30, 1992, which is abandoned.

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DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 4.

The disclosed invention relates to a system for adjusting the transverse location of an exposure frame on a photoreceptor belt in relation to the detected lateral position of a set of three inclined slots associated with the exposure frame. Each slot is inclined at an angle with respect to a transverse line perpendicular to the process direction of the exposure frame on the photoreceptor belt.

Claim 1 is the only independent claim on appeal, and it reads as follows:

1. An improved imaging system for forming multiple image exposure frames on a photoconductive member including:

a photoreceptor belt adapted to accommodate the formation of an integral number of image exposure frames, said belt having a plurality of target apertures formed outside of the exposure area and associated with each exposure frame respectively,

detecting means associated with said target apertures for detecting changes in the lateral position of each aperture, the apertures in said belt moving through a process direction, and

means for generating signals for adjusting the transverse location of said exposure frames in relation to the detected lateral position of said apertures wherein the improved apertures comprise a set of three inclined slots, each slot alternately and differently inclined with respect to each other at an angle **2** which is greater than 0° with respect to a transverse line

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perpendicular to the process direction, each slot separated from each other by a distance S in the process direction when the belt is properly registered.

The references relied on by the examiner are:

Suzuki et al. (Suzuki)	4,315,201	Feb. 9, 1982
Wong et al. (Wong)	5,208,796	May 4, 1993
		(filed Jan. 3, 1991)

Claims 1 through 4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wong in view of Suzuki.

Reference is made to the brief and the answer for the respective positions of the appellants and the examiner.

#### OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 through 4.

Figure 5 of Wong discloses a set of three slots 60, 62 and 64 on a photoreceptor belt 12, but only slot 64 is inclined at an angle that is greater than 0 degrees with respect to a transverse line perpendicular to the process direction of the belt. Figure 6 of Wong discloses a set of two inclined slots 66 and 68 on a photoreceptor belt 12. We agree with the examiner that Wong "does not explicitly disclose the use of a set of three inclined

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slots, each of the slot [sic, slots] is inclined at an angle of greater than zero degree with respect to a perpendicular line" (Answer, page 3).

Suzuki discloses (Figure 1) apparatus for aligning a mask 12 and a wafer 13 during the manufacture of semiconductor circuit elements. As seen in Figures 3 and 4, the mask 12 has a plurality of circuit pattern areas A that are separated by narrow strips S. In Figure 4, the mask 12 and the wafer 13 are shown in an aligned position. In the narrow strip S, the plurality of alignment marks C5 and C6 are located on the mask 12, and the plurality of alignment marks C1 through C4 are located on the wafer 13.

According to the examiner (Answer, pages 3 and 4):

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Suzuki et al. and modify the system of Wong et al. Such modification of using three slots inclined with respect to each other is merely a duplication of elements<sup>2</sup> as opposed to two marks inclined with respect to each other (see fig. 6 of Wong et al) in order to increase the lateral deviation detection accuracy. One skilled in the art would have been motivated to use the teaching of Suzuki et al. for the purpose of precise alignment between an image and reference point yielding to an accurate image recording system.

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<sup>2</sup> This statement gives the impression that the examiner is relying on the sole teachings of Wong.

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Appellants argue that Suzuki "discloses and claims a mask and wafer alignment apparatus for use in the manufacture of circuit elements" that uses "marks" as opposed to slots on the mask and the wafer (Brief, pages 8 and 10), whereas claim 1 "recites an imaging system which forms multiple image exposures on a photoreceptor belt and includes claim elements directed at detecting lateral deviation of the belt during travel and generating signals for correcting for the unwanted transverse movement of the belt" (Brief, page 8). In view of the vast differences between the disclosed and claimed invention and the teachings of Suzuki, we agree with appellants that "Suzuki is not analogous art and is not relevant to a consideration of obviousness under Section 103" (Brief, page 7). Inasmuch as Suzuki is concerned with the use of marks in the alignment of a stationary mask and wafer, we do not believe that such teachings would have logically commended themselves to an inventor concerned with the problem of adjusting a moving photoreceptor belt with the aid of slots located therein. See In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992). The teachings of Suzuki, therefore, can not be relied upon by the

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examiner to modify the teachings of Wong to arrive at the claimed invention. Thus, the obviousness rejection is reversed.

DECISION

The decision of the examiner rejecting claims 1 through 4 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
ERROL A. KRASS	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
RICHARD TORCZON	)	
Administrative Patent Judge	)	

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